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| 10/066,552 | 01/31/2002 | Clayton N. Cowgill | 18235-05422 (S30135US1.1) | 2737 |
| 20306 | 7590 | 06/06/2005 | EXAMINER | |
| MCDONNELL BOEHNEN HULBERT & BERGHOFF LLP 300 S. WACKER DRIVE 32ND FLOOR CHICAGO, IL 60606 | | | SELLERS, DANIEL R | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2644 | |

DATE MAILED: 06/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/066,552

Applicant(s)

COWGILL ET AL

Examiner

Daniel R. Sellers

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 January 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 5/21/02.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. Regarding claims 1-18, it is unclear what the scope of being portable is in a portable audio player. The office interprets the word portable, as defined by the American Heritage Dictionary, to mean carried or moved with ease.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-5 and 7-10 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Chang et al., U.S. Patent No. 5,991,885 (hereinafter Chang).

6. Regarding claim 1, see Chang

A portable audio player comprising:

a communication port for facilitating bi-directional communication between the portable audio player and a peripheral device; and (Col. 3, lines 38-60)

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a processor operatively coupled to the communication port, the processor adapted to determine a bit rate associated with communications from the peripheral device. (Col. 5, lines 22-28)

Chang teaches these features in a network of computers. It is well known in the art that a computer can function as an audio player.

7. Regarding claim 2, the further limitation of claim 1, see Chang

... wherein the communication port operatively couples the portable audio player to the peripheral device via a wired connection including a number of bus lines. (Col. 8, lines 53-57)

Chang teaches the use of a wired connection using a number of bus lines.

8. Regarding claim 3, the further limitation of claim 1, see Chang

... wherein the communication port operatively couples the portable audio player to the peripheral device via a wireless connection. (Col. 6, lines 12-20)

Chang teaches the use of a wireless connection.

9. Regarding claim 4, the further limitation of claim 1, see Chang

... further comprising:

a universal asynchronous receiver transmitter for transmitting and receiving communications to and from, respectively, the peripheral device via the communication port. (Col. 10, lines 25-29)

Chang teaches an RS-232 driver for bi-directional communication. RS-232 is a communication protocol which typically uses universal asynchronous receiver transmitters (UARTs).

10. Regarding claim 5, the further limitation of claim 1, see the preceding argument with respect to claim 1 and see Chang

... wherein the processor has access to a transceiver adapted to transmit and receive communications to and from, respectively, the peripheral device via the communication port. (Col. 4, line 63 – Col. 5, line 2).

It is inherent that the peripheral devices have processors which allow access to a transceiver for communication in a device as taught by Chang.

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11. Regarding claim 7, the further limitation of claim 1, see the preceding argument with respect to claim 1. Chang teaches the use of computers, which inherently have storage units for storing received data.

12. Regarding claim 8, the further limitation of claim 1, see the preceding argument with respect to claim 1. Chang teaches the use of computers, which inherently have a display unit for displaying received information from the peripheral device.

13. Regarding claim 9, the further limitation of claim 1, see the preceding argument with respect to claim 1. Chang teaches the delivery of power to a peripheral device.

14. Regarding claim 10, see the preceding argument with respect to claim 1. Chang teaches a communication port, a transceiver, and a processor as claimed (Col. 13, lines 38-53). It is inherent that a processor in a system, as taught by Chang, adapts to a bit rate associated with the peripheral device when the system detects between different network protocols.

15. Claim 20 is rejected under 35 U.S.C. 102(b) as being clearly anticipated by Goldstein, U.S. Patent No. 5,317,594.

16. Regarding claim 20, see Goldstein

A method for establishing a bi-directional communication link between a host device and a peripheral device, the method comprising:

transmitting a known character from the peripheral device to the host device at a peripheral device bit rate; (Col. 2, lines 15-18)

at the peripheral device, receiving a reply character from the host device at a target bit rate that potentially matches the peripheral device bit rate; and (Col. 2, lines 18-22)

in response the reply character matching a known reply character, confirming the target bit rate as matching the peripheral device bit rate thereby establishing a valid bi-directional communication link between the host device and the peripheral device. (Col. 2, lines 24-27)

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Goldstein teaches a method for establishing a bi-directional communication link with these features.

Claim Rejections - 35 USC § 103

17. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

18. Claim 6 and 11-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chang as applied to claim 1 above, and further in view of Key et al., U.S. Patent No. 5,008,902 (hereinafter Key).

19. Regarding claim 6, the further limitation of claim 1, see Key

... wherein the processor determines the bit rate associated with communications from the peripheral device by adjusting a receiving bit rate associated with the portable audio player until a known character transmitted by the peripheral device is recognized by the portable audio player. (Col. 1, lines 61-63 and Col. 2, lines 5-26)

Chang teaches a portable audio device with the features of claim 1, but fails to teach the adjusting of a receiving bit rate. Key teaches the automatic detection of baud rates using the transmission of known characters in various peripherals (Col. 1, lines 10-14). It would have been obvious for one of ordinary skill in the art to combine the teachings of Chang and Key for the purpose of automatically determining the baud rate, or the rate of transmission, of a peripheral device.

20. Regarding claim 11, see the preceding argument with respect to claim 6. The combination of Chang and Key teaches a bi-directional communication link with the

features of transmitting known data at one rate and determining the bit rate of a peripheral device by recognizing the known data. The combination does not specifically teach the confirmation of a valid link, however it is well known in the art of communication, that handshake protocols exist to validate communication links.

21. Regarding claim 12, the further limitation of claim 11, see the preceding argument with respect to claim 2. The combination of Chang and Key teaches the use of wired bus lines.

22. Regarding claim 13, the further limitation of claim 11, see the preceding argument with respect to claim 3. The combination of Chang and Key teaches a wireless connection.

23. Regarding claim 14, the further limitation of claim 11, see the preceding argument with respect to claim 6. The combination of Chang and Key teaches the feature of adjusting the rate until a known character is recognized.

24. Regarding claim 15, the further limitation of claim 11, see the preceding argument with respect to claim 7. The combination of Chang and Key inherently teaches storage devices in the portable audio device.

25. Regarding claim 16, the further limitation of claim 11, see the preceding argument with respect to claim 8. The combination of Chang and Key inherently teaches display devices in the portable audio device.

26. Regarding claim 17, the further limitation of claim 11, see the preceding argument with respect to claim 9. The combination of Chang and Key teaches the delivery of power to a peripheral device.

27. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Chang and Key as applied to claim 11 above, and further in view of Goldstein.

28. Regarding claim 18, the further limitation of claim 11, see Goldstein

*... wherein the step of confirming a valid communication link further comprises:
transmitting a reply character from the portable audio player to the peripheral device at the peripheral device bit rate; and (Col. 2, lines 15-21)
in response to the peripheral device recognizing the reply character, confirming a valid communication link. (Col. 2, lines 21-26)*

The combination of Chang and Key teach a portable audio device with the features of claim 11, however the combination does not teach a validation step. Goldstein teaches a method of identifying older, slower transmission rates with newer modems, and this method includes a confirmation step. It would have been obvious for one of ordinary skill in the art to combine the teachings of Chang, Key, and Goldstein for the purpose of providing backward compatibility with transmission standards.

29. Claim 19 is rejected under 35 U.S.C. 102(b) as being clearly anticipated by the combination of Key and Goldstein.

30. Regarding claim 19, see Key

*A method for establishing a bi-directional communication link between a host device associated with a first bit rate and a peripheral device associated with a second bit rate, the method comprising:
at the host device, receiving a known character from the peripheral device at the second bit rate;
(Col. 2, lines 5-15)
in response to the host device not recognizing the known character,
adjusting the first bit rate; and (Col. 2, lines 16-24)
repeating the receiving and adjusting steps until the host recognizes the known character
thereby indicating that the adjusted first bit rate matches the second bit rate;
(Col. 2, lines 24-26)
in response to the host device recognizing the known character,*

transmitting a reply character at the adjusted first bit rate to the peripheral device to confirm a valid bi-directional communication link between the host device and the peripheral device.

Key teaches a method of automatically adjusting the baud rate of a transmission link during initiation. Key does not teach the step of transmitting a reply character.

Goldstein teaches a method of providing backward compatibility for modems, wherein known characters and reply characters are used to confirm a valid link. It would have been obvious for one of ordinary skill in the art to combine the teachings of Key and Goldstein for the purpose of backward compatibility in establishing a communication link.

Conclusion

31. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Arai et al., U.S. Patent No. 5,706,353, Sham et al., U.S. Patent No. 5,891,042, Ogawa et al., U.S. Patent No. 6,271,984, Holmes et al., U.S. Patent No. 6,636,749, and Juskiewicz et al., U.S. Patent No. 6,686,530.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel R. Sellers whose telephone number is 571-272-7528. The examiner can normally be reached on Monday to Friday, 9am to 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh Tran can be reached on 571-272-7564. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



SINH TRAN
SUPERVISORY PATENT EXAMINER

DRS